BUSHMAN®

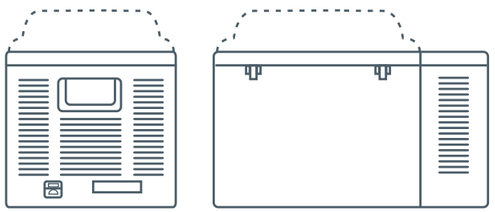
www.bushman.com.au

Dimensions

Fridge Capacity	Height mm	Width mm	Length mm (Not including handles)
35L	380	385	670
42L	470	385	670
45L	458	385	670
52L	548	385	670

WARRANTY

BUSHMAN WARRANTS, TO THE ORIGINAL OWNER, THAT THIS PRODUCT IS FREE FROM DEFECTS IN WORKMANSHIP AND MATERIAL FOR A PERIOD OF THREE YEARS FROM THE PURCHASE DATE. THIS WARRANTY SHALL BE LIMITED TO REPAIRING OR REPLACING, AT BUSHMAN'S OPTION AND WITHOUT CHARGE TO THE PURCHASER, DEFECTIVE COMPONENTS. ALL WARRANTY WORK SHALL BE PERFORMED AT A BUSHMAN APPROVED FACILITY. SHIPPING CHARGES RELATED TO RETURNING THE PRODUCT TO THE BUSHMAN FACILITY ARE NOT COVERED UNDER THIS WARRANTY. HOWEVER, THIS WARRANTY COVERS SHIPPING CHARGES RELATED TO RETURNING THE REPAIRED PRODUCT TO THE CUSTOMER. THIS WARRANTY DOES NOT APPLY TO DAMAGE OR WEAR TO THE PRODUCT CAUSED BY ACCIDENT, ABUSE, MISUSE, NEGLECT, UNAUTHORIZED ALTERATION OR REPAIR, OR IF THE PRODUCT WAS NOT INSTALLED IN ACCORDANCE WITH BUSHMAN PRINTED INSTALLATION AND OPERATING INSTRUCTIONS. TO OBTAIN SERVICE UNDER THIS WARRANTY, THE DEFECTIVE PRODUCT MUST BE RETURNED TO BUSHMAN TOGETHER WITH ORIGINAL PURCHASE RECEIPT. ANY PRODUCT REPAIRED OR REPLACED UNDER THIS WARRANTY WILL BE WARRANTED FOR THE BALANCE OF THE WARRANTY PERIOD WITH RESPECT TO THE ORIGINAL PURCHASED PRODUCT



Bushman Portable Fridges
Customer Service

VIC - (03) 9437 0737
NSW - (02) 4321 1555
QLD - (07) 5593 4066
WA - 0439 973 649
SA - (08) 8391 4391

BUSHMAN®

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OWNERS MANUAL

MODEL: SC 35/42

READ CAREFULLY BEFORE USE AND INSTALLATION

12 Volt 4x4 35-42 LITRE

FRIDGE FREEZER

BUSHMAN®

*THIS REFRIGERATOR MUST NEVER BE LAID DOWN ON ITS BACK OR SIDES

Introduction

3 Year warranty applies to this refrigerator provided it is not subjected to abnormal use and all instructions are noted. This refrigerator uses the latest in 'low energy' compressor technology. To ensure that you use the minimum amount of 12V (DC) power please read the instructions before using your refrigerator

Positioning

In order for your refrigerator to operate correctly and efficiently, you must have sufficient air ventilation around the rear, sides and top. This will insure the free flow of heat, which is generated from the compressor and condenser during the cooling down time.

Note: Never place items on top of the vents above the compressor, heat will not be able to escape and overheating could occur. This will result in excessive running periods of the compressor and reduce the life of your compressor.

Basically the more air flow around the refrigerator the shorter the running cycles, which means lower energy consumption.

Connection

Your Bushman can be run form 12/24V (DC) and 240V (AC) through an external 240V adaptor.

1. When running off 12V (DC)

The Bushman is not designed to run off a standard vehicle cigarette lighter outlet. Often the wiring size to this outlet is insufficient to allow correct functioning of the refrigerator.

TO INSURE CORRECT START AND OPERATING CONDITIONS, ALWAYS USE MINIMUM 6MM AUTOMOTIVE SIZE CABLE

Always wire direct from the battery preferably through a 10amp circuit breaker and make sure the earth is back to the battery and not the chasse.

It is always preferred to run direct off a deep cycle battery with a 100A/Hr rating.

Note: If you decide to fit a different type of fitting other than the one supplied then note that the smooth side of the lead or the one with writing is the positive.

Reverse polarity will cause damage to the panel and will not be under warranty

2. When running off 240V (AC)

Plug your 12V (DC) lead into the 240v adaptor and then direct to mains power.

Never run direct from the refrigerator to mains power without a 240V adaptor. Irreversible damage can occur and will void any warranty

3. When running from a generator

The Bushman is not designed to be run from the 240v or 12v generator outlet, it is more efficient when running directly from a battery. Fluctuations in generator current will damage the refrigerator or the 240V adaptor. The following method should be adopted when using a generator with the Bushman refrigerator.

Use a battery charger from the 240v generator outlet to the battery and then run the refrigerator from the battery.

NO WARRANTY CLAIMS WILL BE ACCEPTED FOR REFRIGERATORS WHICH ARE RUN DIRECTLY FROM A GENERATOR

Installation of high lid and extension collar:

1. Slide standard lid to the left and remove.
2. Slide on high lid/extension collar.
3. Release tension on all 12 hinge screws
4. Close lid extension collar and clip down.
5. Retention screws with lid/extension collar in clipped down position.

Operational Instructions

1. It is always recommended to run your fridge for 4-5 hours (or overnight if available) before use, preferably through your 240V power supply, this will ensure that the internal air temperature, condenser and insulation in the refrigerator has had time to equalise and cycle times have been reduced. By doing this before you plan to use your refrigerator you reduce the amount of power it consumes on 12V and will provide for a more efficient running refrigerator
2. Plug into the D.C power source per the specified rating (DC 12V)
3. Press the power switch to the on position the power and blue back indicator will light up
4. To display set temperature, hold down set switch
5. To set higher & lower temperature: Hold down set button and press either up or down button until desired temperature is displayed.
   Note: When the fridge is running it will operate at 2˚C either side of set temperature i.e. fridge set at 0˚C will run until reaches –2˚C then stop with the green energy light illuminated then will cut back in when the temperature reaches +2˚C
   By running 2˚C either side of set temperature it helps the compressor cutting in and out all the time reducing power consumption and gives a more realistic internal temperature.

Hint: If using the unit as a refrigerator in the 42/45L combination set the thermostat to –1˚C. Items in the middle of the refrigerator will then be at a temperature of approximately +2˚C

CLEANING

Internal Cleaning

Wash the inside of the appliance with luke warm water and a mild soap. Never use abrasive or corrosive cleaning agents, steel wool, scouring sponges, chemical cleaning agents, or highly perfumed cleaning products to clean the interior as these will damage the surface and leave behind a strong odor. A sponge, towel, or soft brush is recommended. Washing with a mixture of two table spoons of baking soda to 1 quart (1.14L) warm water. After cleaning, thoroughly rinse and dry.

Normal Operating Sounds

- You may hear faint gurgling or bubbling sounds when the refrigerant is pumped through the refrigerant coils.
- When the compressor is on, the refrigerant is being pumped around and you will hear a whirring sound or pulsating noise from the compressor.

COMPRESSOR PROTECTIONS

1. Fan over current: protects the compressor and the electronic driver against fan over current due to start or running overload, or short-circuit.
2. Starting Failure: if the running speed is not achieved during the starting sequence, the unit is stopped and start up is retried after one minute.
3. Compressor overload: this protection operates when the compressor speed drops below the set up speed, or when the current draw is excessive, thus preventing the fridge from operating under overload conditions, which may cause refrigerating overload or compressor failure.
4. Electronic driver overheat: if the temperature of the control's electronic components becomes too high, an internal sensor will stop the unit

In case of overheating, one automatic attempt to restart the compressor is allowed. In case of battery protection, the number of automatic attempts to restart is not limited. In case of any other protection occurring, two automatic attempts to restart the compressor are allowed. Once the sequence of automatic attempts to restart the compressor is finished, the unit will remain unable to operate until it is switched off and on again. The intervention of the thermostat during the sequence of automatic restart attempts interrupts and resets the sequence

FAULT FINDING CHART

FAULT	POSSIBLE CAUSE	ACTION
Fridge not cold Compressor will not start	No power Battery poor connection Faulty thermostat Faulty electronic unit	Check power at lead is over 12V Replace- contact service agent Replace- contact service agent Check to see if compressor starts on 240V adaptor
Compressor makes only short start attempts	Bad power supply, too low voltage or voltage drop at start attempts. Discharged batteries	Check cables and connections, possible corrosion, clean. Charge batteries, run engine or connect battery charger. Voltage needs to be above 11.5 volt at start attempts
Compressor runs but no refrigeration generated	Loss of refrigerant. Leakage in pipes or evaporator. Blocked refrigeration pipes	Mount service nipple on the compressor. Leak test, repair possible leak, evacuate and re-fill refrigerant (60 grams) (All this to be carried out by refrigeration specialist)
Compressor runs long time but not generating enough cold	Bad ventilation. Condenser too warm. Fan not operating. Too much ice build up on evaporator Lid not sealing. Condenser blocked by dust	Improve ventilation around refrigerator. Replace fan. Defrost. Check seals on lid. Remove top casing and blow dust from inside condenser
Unable to change temperature setting	Control panel locked	Reset control board. Insert thin object through reset hole in board and press. Control panel will go blank and then automatically reset